

### **Abstract**

The present invention relates to coated powder, comprising a Ti-bearing core and a Ni-bearing coating, which can be used for the production of porous Ni--Ti articles by the self-propagating high temperature synthesis (SHS) method. The obtained articles are ideally suited for use in biomedical applications. According to the invention, a coated powder is used comprising a metallic Ti-bearing core and a metallic Ni-bearing coating, characterised by a Ni:Ti atomic ratio of more than 0.5, preferably between 0.9 and 1.1, and more preferably between 0.96 and 1.04. By using coated powders, local fluctuations in composition are limited and well under control. Milling of powders and the ensuing contamination risks are avoided. The sintered objects obtained using coated powders have a more homogeneous porosity than that using mixed Ni and Ti powders.